Southern Nuclear

Jamie M. Coleman
Regulatory Affairs Director
Vogtle 3 & 4

7825 River Road
Waynesboro, GA 30830
706-848-6926 tel

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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.3.04.02.ii [Index Number 328]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria ITAAC item 2.3.04.02.ii [Index Number 328]. This ITAAC verified that the inspection and analysis of the as-built Fire Protection System (FPS) piping (including valves and pipe supports) shown on Combined License (COL) Appendix C, Figure 2.3.4-2 remains functional following a safe shutdown earthquake (SSE). The closure process for this ITAAC is based on the guidance described in NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.04.02.ii [Index Number 328]

JMC/MKO/sfr

cc: Regional Administrator, Region ll
Director, Office of Nuclear Reactor Regulation (NRR)
Director, Vogtle Project Office NRR
Senior Resident Inspector – Vogtle 3 & 4

Southern Nuclear Operating Company
ND-22-0495
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.04.02.ii [Index Number 328]

ITAAC Statement

Design Commitment

2. The FPS piping shown on Figure 2.3.4-2 remains functional following a safe shutdown earthquake.

Inspections/Tests/Analyses

ii) A reconciliation analysis using the as-designed and as-built piping information will be performed, or an analysis of the as-built piping will be performed.

Acceptance Criteria

ii) The as-built piping stress report exists and concludes that the piping remains functional following a safe shutdown earthquake.

ITAAC Determination Basis

Multiple ITAAC were performed to demonstrate the Fire Protection System (FPS) piping shown on Combined License (COL) Appendix C, Figure 2.3.4-2 (“the figure") remains functional following a safe shutdown earthquake (SSE). The subject ITAAC requires a reconciliation analysis using the as-designed and as-built piping information be performed, or an analysis of the as-built piping be performed and documented in the as-built piping stress report that concludes the piping remains functional following a SSE.

The portion of the FPS piping shown in the figure that is designated as “JCB” (i.e., equipment class B) is classified as Seismic Category I and designed in accordance with American Society of Mechanical Engineers (ASME), Boiler & Pressure Vessel Code Section III, 1998 Edition, 2000 Addenda (Reference 1). The portions of the FPS piping shown in the figure that are designated as “RCF” (i.e., equipment class F) are classified as Seismic Category II and designed in accordance with ASME B31.1, 1989 Edition, 1989 Addenda (Reference 2) and are seismically analyzed consistent with ASME Section III Class 3 systems. The JCB and RCF piping is designed to remain functional following a SSE. Updated Final Safety Analysis Report (UFSAR) Table 3.9-11 provides that Service Level D conditions be applied using ASME Equation 9 and a stress limit which is less than or equal to the smaller of 3.0 allowable stress (Sh) or 2.0 yield strength (Sy) (Reference 3). This stress limit was used in the stress analysis for the piping represented in COL Appendix C Figure 2.3.4-2 to demonstrate the piping classified as JCB and RCF remains functional following a SSE. Additional information on the classification designations and applicable code requirements are described in Subsection 3.2.1 and Table 3.2-3 of the Updated Final Safety Analysis Report (UFSAR) (Reference 3).

The Unit 4 ASME Section III as-built piping assessment and stress report (Reference 5) for the FPS piping (including valves) identified as equipment class B in the figure were completed and concluded that the as-built FPS piping (including valves) remains functional following a SSE.

The Unit 4 ASME B31.1 as-built piping assessment and stress report (Reference 5) identified as equipment class F in the figure were completed and concluded that the as-built piping (including valves) remains functional following an SSE.

The as-built piping system identified as equipment class B and class F in the figure was subjected to a reconciliation process (References 4 and 5), which verified that the as-built piping system has been analyzed for normal operating loads, seismic loads and for compliance with the design specification. Design reconciliation of the as-built system designated as equipment class B and class F in the figure validated that construction completion, including field changes and any nonconforming condition dispositions, is consistent with and bounded by the approved design. The results of the physical inspection of the piping and reconciliation were incorporated into the as-built piping stress report.

The Unit 4 as-built piping assessment and stress report (Reference 5) exists and concluded that the FPS piping shown on COL Appendix C, Figure 2.3.4-2 remains functional following a safe shutdown earthquake.

References 4 and 5 are available for NRC inspection as part of the Unit 4 ITAAC Completion Package (Reference 6).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.3.04.02.ii (Reference 6) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.04.02.ii was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met. Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. ASME Boiler and Pressure Vessel Code, Section III, “Rules for Construction of Nuclear Facility Components”, 1998 Edition, 2000 Addenda
2. ASME B31.1, “Power Piping”, 1989 Edition, 1989 Addenda (formally ANSI)
3. VEGP 3&4 Updated Final Safety Analysis Report, Revision 11.2:
    a. Subsection 3.2.1, Seismic Classification
    b. Table 3.2-3, AP1000 Classification of Mechanical and Fluid Systems, Components, Equipment
    c. Table 3.9-11, Piping Functional Capability Class 1, 2 and 3
    d. Subsection 3.7.3.13.4.2, Seismic Category II Piping
4. APP-GW-GAP-139, Rev. 9, “Westinghouse/WECTEC ASME N-5 Interface Procedure”
5. SV4-FPS-Z0R-001, Rev. 0, “Vogtle Unit 4 Fire Protection System (FPS) ITAAC Requirement As-built Assessment Report”
6. 2.3.04.02.ii-U4-CP-Rev0, ITAAC Completion Package
7. NEI 08-01, “Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52”